



February 28, 2007

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VIA HAND DELIVERY

The Honorable Charles Terreni
Chief Clerk & Administrator
Public Service Commission of South Carolina
101 Executive Center Drive
Columbia, South Carolina 29210

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Date: 3-1-07
Time: _____

Re: Annual Review of Base Rates for Fuel Costs for South Carolina Electric & Gas Company
Docket No. 2007-2-E

Dear Mr. Terreni:

Enclosed for filing, on behalf of South Carolina Electric & Gas Company, is the direct testimony of Thomas D. Gatlin, Joseph K. Todd, Gerhard Haimberger, Joseph M. Lynch, and John R. Hendrix. Please accept the original and twenty-five (25) copies of each for filing. Additionally, please acknowledge your receipt of these documents by file-stamping the extra copies that are enclosed and returning them to us via our courier.

By copy of this letter, we are serving all other parties of record with a copy of the enclosed direct testimony and attach a certificate of service to that effect.

If you have any questions regarding this matter, please do not hesitate to contact me.

Very truly yours,

K. Chad Burgess

KCB/kms
Enclosures

cc: Shannon Bowyer Hudson, Esquire
Jeffrey Nelson, Esquire
Scott Elliott, Esquire
Mitchell Willoughby, Esquire
Belton T. Zeigler, Esquire
(all via hand delivery with enclosures)

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A. My name is Thomas D. Gatlin. My business address is P.O. Box 88, Jenkinsville, South Carolina. I am employed by SCE&G as the General Manager of Nuclear Operations at the Virgil C. Summer Nuclear Station (VCSNS or VC Summer).

A. I received a BS degree in Electrical Engineering from Christian Brothers University (Memphis, TN) in 1980. I have been a licensed, professional electrical engineer in South Carolina since 1984, and obtained a Senior Reactor Operator license at VCSNS in 1985.

I have been the plant manager at VC Summer for over two years. I was the operations manager for three years prior to my current assignment, and have served in various roles in the operations, engineering, and maintenance departments since joining the company in 1982. I worked at

1 the Tennessee Valley Authority (TVA) for two years in the nuclear
2 instrumentation division prior to working for SCE&G.

3 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

4 A. The purpose of my testimony is to review the operating performance
5 of VCSNS during the period from February 1, 2006 through January 31,
6 2007.

7 **Q. WHAT ARE YOUR OBJECTIVES IN THE OPERATION OF**
8 **VCSNS?**

9 A. Our primary objective at VCSNS is always safe operation. We also
10 strive for excellence in all phases of operation of the facility. The station's
11 key focus areas of SAFETY, outage performance, equipment reliability,
12 and constant improvement have facilitated the station's good performance
13 through enhanced alignment of the organization. Our business objectives
14 are focused on maintaining a competitive production cost for the generation
15 of electricity using nuclear fuel.

16 **Q. WHAT HAS BEEN THE COMPANY'S EXPERIENCE WITH THE**
17 **PERFORMANCE OF THE VCSNS?**

18 A. We continuously meet or exceed all Nuclear Regulatory
19 Commission (NRC) requirements and Institute of Nuclear Power
20 Operations (INPO) standards. VCSNS has performed well during the
21 period from February 1, 2006 through January 31, 2007. Consistent with

1 the provisions of Section 58-27-865 of the South Carolina Code of Laws, as
2 amended, VC Summer's net capacity factor based on reasonable excludable
3 nuclear system reductions during the review period was 101.6 % and the
4 gross generation output was 7,518,135 MWH's.

5 **Q. HAS VCSNS EXPERIENCED ANY OUTAGES DURING THE**
6 **REVIEW PERIOD?**

7 A. Yes, VCSNS has experienced the following:

- 8 • Reactor power was reduced to 75% on 05/26/2006 to repair a leak in
9 the "C" feedwater booster pump inboard seal. The unit returned to
10 full power operation on 05/29/2006 following the repair.
- 11 • Reactor power was reduced to approximately 80% on 06/16/2006 to
12 repair the "C" feedwater booster pump inboard seal. The unit
13 returned to full power operation on 06/19/2006 following the repair.
- 14 • Reactor power was reduced to 90% on 07/12/06 due to a trip of the
15 "B" Main Feedwater Pump. The unit returned to full power
16 operation on 07/13/06.
- 17 • Power was reduced to 93.6% on 09/13/06 due to a malfunction of
18 the 'A' Reheater Drain Tank normal drain valve. The valve
19 positioner was replaced and power was restored on 09/14/06.
- 20 • Refueling Outage 16 started as scheduled during this review period
21 on 10/14/06. The reactor returned to criticality on 11/21/2006, and

1 the 39 day outage ended with the closure of the generator breaker on
2 11/22/2006. The planned schedule of 37 days was exceeded by two
3 days due to a shortage of supplemental skilled labor, delays
4 associated with testing, and a steam generator overfill event. The
5 outage was completed under budget with no injuries and no
6 significant safety events.

- 7 • The turbine was taken off line from 11/24/2006 to 11/25/06 to
8 perform routine post-maintenance balancing on the generator due to
9 vibration. Full reactor power was achieved on 11/28/2006.

10 **Q. WHEN WILL THE NEXT REFUELING OUTAGE OCCUR?**

11 A. Refueling outages are scheduled every 18 months to replace depleted
12 fuel assemblies. Simultaneously, maintenance and testing that cannot be
13 done with the plant on-line is conducted. Our next refueling outage will be
14 Refuel 17 starting in April, 2008.

15 **Q. PLEASE EXPLAIN THE ROLES OF INPO AND THE NRC WITHIN**
16 **THE NUCLEAR INDUSTRY AND DESCRIBE ANY RANKINGS**
17 **RECEIVED BY VCSNS FROM THOSE AGENCIES.**

18 A. INPO is a nonprofit corporation established by the nuclear industry
19 to promote the highest levels of nuclear safety and plant reliability. INPO
20 promotes excellence in the industry in the operation of nuclear electric
21 generating plants. For the applicable reporting period, INPO rated

1 VCSNS's overall performance as exemplary which is the highest rating
2 awarded.

3 The NRC is responsible for the licensing and oversight of the
4 civilian use of nuclear materials in the United States. The NRC has
5 reported that VCSNS operated in a manner that preserved public health and
6 safety and fully met all cornerstone objectives. During the reporting
7 period, the NRC implemented one supplemental inspection beyond the base
8 inspection scope. No deficiencies were noted.

9 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

10 A. Yes.

1 **DIRECT TESTIMONY OF**
2 **JOSEPH K. TODD**
3 **ON BEHALF OF**
4 **SOUTH CAROLINA ELECTRIC & GAS COMPANY**
5 **DOCKET NO. 2007-2-E**
6

7 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND**
8 **POSITION WITH SOUTH CAROLINA ELECTRIC & GAS**
9 **COMPANY (SCE&G).**

10 A. Joseph Todd, 111 Research Drive, Columbia, South Carolina. I am
11 employed by South Carolina Electric & Gas Company as General Manager,
12 Fossil & Hydro Operations.

13 **Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND AND YOUR**
14 **BUSINESS EXPERIENCE.**

15 A. My degree is a B.S. in Civil Engineering from Clemson University.
16 I began my career with Duke Power in 1980 working as a structural
17 engineer for several nuclear plants. I started working with SCE&G in 1981
18 as a Structural Engineer for V.C. Summer nuclear station in Jenkinsville,
19 SC. In this capacity, I participated in the startup and initial operation of this
20 facility and continued working at V.C. Summer until 1990. In 1990, I
21 transferred to the Fossil/Hydro division of SCE&G and assumed a project
22 management role for initial work on the Cope project along with a number
23 of other environmental projects. I also served as Assistant Manager of
24 McMeekin Station from 1995 to 1998 before returning to a project

1 management role for several environmental projects including SCR
2 installations at Williams and Wateree. Subsequent roles included Business
3 Manager of the Company's power operations on the Savannah River Site,
4 and Manager of Fossil/Hydro Outage Planning. I assumed the role of
5 General Manager, Fossil & Hydro Operations in February of 2007. In this
6 position, I report to the Vice President of Fossil Hydro Operations.

7 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

8 A. The purpose of my testimony is to review the operating performance
9 of South Carolina Electric & Gas Company's fossil units and South
10 Carolina Generating Company's (GENCO) Williams Electric Generating
11 Station (Williams Station) during the period February 1, 2006 through
12 January 31, 2007.

13 **Q. PLEASE GIVE A SHORT DESCRIPTION OF SCE&G'S FOSSIL**
14 **AND HYDRO ELECTRIC FACILITIES.**

15 A. SCE&G owns and operates ten (10) coal-fired fossil fuel units
16 (2,476 Mw), eight (8) combined cycle gas turbine/steam generator units
17 (gas/oil fired, 1,352 Mw), eighteen (18) peaking turbines (365 Mw), four
18 (4) hydroelectric generating plants (238 Mw), and one Pump Storage
19 Facility (576 Mw). The total net non-nuclear summer generating capability
20 rating of these facilities is 5,007 megawatts.

1 **Q. PLEASE EXPLAIN TO THE COMMISSION GENCO AND ITS**
2 **RELATIONSHIP TO SCE&G.**

3 A. GENCO was incorporated October 1, 1984, as a SCANA subsidiary.
4 GENCO owns the Williams Station. GENCO sells to SCE&G the entire
5 capacity and output from the Williams Station under a Unit Power Sales
6 Agreement approved by the Federal Energy Regulatory Commission.
7 Hereafter when I refer to SCE&G's fossil steam plants, I include GENCO.

8 **Q. HOW MUCH ELECTRICITY WAS GENERATED BY SCE&G IN**
9 **THE TWELVE MONTH REVIEW PERIOD?**

10 A. In the review period, SCE&G generated 26,069,000 megawatt hours
11 of energy. Of this energy, the fossil steam plants generated 66%, the
12 combined cycle units generated 11%, the gas peaking turbines and hydro
13 facilities generated 4%, and the nuclear plant generated 19%. Exhibit No.
14 ____ (JKT-1) provides a graphic display of how the generation met this
15 review period's energy demand.

16 **Q. PLEASE SUMMARIZE THE PERFORMANCE OF THE FOSSIL**
17 **UNITS.**

18 A. Overall, SCE&G's fossil units have operated efficiently and
19 dependably in the twelve (12) month period of February 1, 2006 through
20 January 31, 2007.

1 Our fossil units have received national recognition for their excellent
2 heat rates. These measures will be covered later in my testimony. We also
3 had a 95.06% availability factor for the peak summer load period between
4 June 1st and September 30th.

5 **Q. PLEASE DISCUSS SCE&G'S PLANNED OUTAGES FOR THE**
6 **PERIOD UNDER REVIEW.**

7 A. A major maintenance outage was scheduled on the Wateree Two
8 unit during the review period. The Wateree Two outage included
9 installation of a new high pressure (HP) turbine rotor, low pressure (LP)
10 turbine rotor inspection and generator rewind, as well as waterwall
11 replacements on the boiler. This outage was scheduled to start on
12 September 17th and end on November 25th. The outage was extended due
13 to additional work that was required to repair issues discovered during
14 inspection of the low pressure turbine rotor blading. Initial startup of the
15 unit from the planned outage occurred on December 22nd. The startup on
16 this unit was further extended into January due to a number of forced
17 outages associated with continuing problems with excessive vibration on
18 the LP rotors along with tube leaks on the boiler. This vibration was
19 determined to be the result of mis-alignment of the LP rotors by the
20 contractor who also was the Original Equipment Manufacturer (OEM) for
21 the turbine. The unit was returned to service on January 30, 2007.

1 In addition to this major outage, smaller maintenance outages were
2 held for the Williams and McMeekin units. A three week outage was
3 conducted for each of the McMeekin units during the Fall of 2006. The
4 work performed during these outages included boiler feedpump
5 replacement, bottom ash work, boiler inspections and various other
6 maintenance work. Williams Station had a three week outage in March
7 2006 to repair ductwork, perform SCR maintenance and install ignitors.

8 Please note also that a major maintenance outage began during the
9 review period at Canadys One on January 14, 2007. This outage involves
10 a turbine overhaul and boiler repairs. This outage is scheduled to be
11 complete by April 8, 2007.

12 Various one and two week preventative maintenance outages were
13 held on the other units during the review period but none involved any
14 extensive maintenance or repairs to the units.

15 **Q. PLEASE DISCUSS ANY SIGNIFICANT FORCED OUTAGES FOR**
16 **THE PERIOD UNDER REVIEW.**

17 A. The Jasper steam turbine unit experienced a forced outage on
18 February 27, 2006 due to a phase to ground short on the generator stator.
19 This short was determined to be the result of excessive vibration on the end
20 windings for the stator. SCE&G worked with the OEM to implement a fix
21 to reinforce the end windings. Planned outages had been scheduled for the

1 Jasper units for routine maintenance during the time that it was off due to
2 the forced outage. These planned outages were incorporated into the forced
3 outage and the planned maintenance work was completed while the unit
4 was down. The plant was returned to service on May 28, 2006.

5 During the outage SCE&G installed equipment to monitor vibration
6 on the end winding connections. As a result of vibration readings obtained
7 from the newly installed monitoring equipment, a decision was made on
8 December 12th to remove the Jasper units from service in order to repair
9 excessive vibration levels on a second end winding. This work was
10 completed and the unit was returned to service on December 21st. SCE&G
11 continues to monitor vibration levels on this unit closely.

12 Williams Station was removed from service on December 21, 2006
13 as a result of a localized fire beneath the generator. This fire was the result
14 of a phase to ground short on the isophase bus at one of the normal station
15 service transformers. The fire was quickly brought under control by plant
16 personnel and there were no personnel injuries as a result of this incident.
17 This incident required replacement of a neutral grounding transformer,
18 current transformers for the generator, and generator electrical bushings.
19 The generator did not receive significant damage as a result of this incident.
20 The Williams unit was returned to service on February 28, 2007. In
21 addition to the repair work associated with the phase to ground short, a

1 number of other normal maintenance items were completed during this
2 forced outage. As a result of this work, SCE&G was able to eliminate the
3 need for a three week planned outage which had been scheduled for April
4 2007. Attached as Exhibit No. ____ (JKT-2) are photographs of the
5 equipment needing repair during the outage.

6 The forced outages for Wateree during the review period were
7 covered in the previous question on planned outages.

8 **Q. WHAT HAS BEEN SCE&G'S SYSTEM FORCED OUTAGE RATE**
9 **FOR THE PERIOD UNDER REVIEW?**

10 A. SCE&G experienced a system forced outage rate on its fossil fueled
11 steam units of 6.19% in the review period. "Forced outage rate" is the
12 percentage of the total hours that generating units are forced out of service
13 (for various reasons) compared with the total hours in service for a period.
14 The North American Electric Reliability Council ("NERC") national five
15 year (2001-2005) average for forced outage rate for similarly sized units is
16 5.69%. The amount in excess of the national average was primarily due to
17 the forced outages at Williams and Wateree Two which have been covered
18 under the earlier responses.

1 **Q. PLEASE DISCUSS THE AVAILABILITY OF SCE&G'S FOSSIL**
2 **PLANTS DURING THE REVIEW PERIOD.**

3 A. SCE&G had an availability of its fossil plants of 86.42% for the
4 review period. Availability is a measure of the actual hours that the
5 generation units are available (overall readiness to provide electricity)
6 divided by the total hours in the 12 twelve-month review period.
7 Availability is not affected by how the unit is dispatched or by the demand
8 from the system when connected to the grid. However, it is impacted by
9 the planned and maintenance shutdown hours. The NERC national five
10 year (2001-2005) average for availability from similar sized pulverized coal
11 fired units was 90.15%. SCE&G's availability was slightly lower than the
12 NERC national five-year average due to the forced outages for Wateree
13 Two and Williams during the review period. However, during the peak
14 period, June 1, 2006 through September 30, 2007, SCE&G operated at an
15 availability of 95.06%.

16 **Q. WHAT HAS BEEN THE HEAT RATE OF THE FOSSIL UNITS**
17 **DURING THE REVIEW PERIOD?**

18 A. Heat rate is a way to measure thermal efficiency of a power plant
19 fuel cycle. It is the number of British Thermal Units (Btu) of fuel required
20 to generate one (1) kilowatt-hour (kWh) of electricity. The combined
21 steam unit's heat rate for the period February 1, 2006 through January 31,

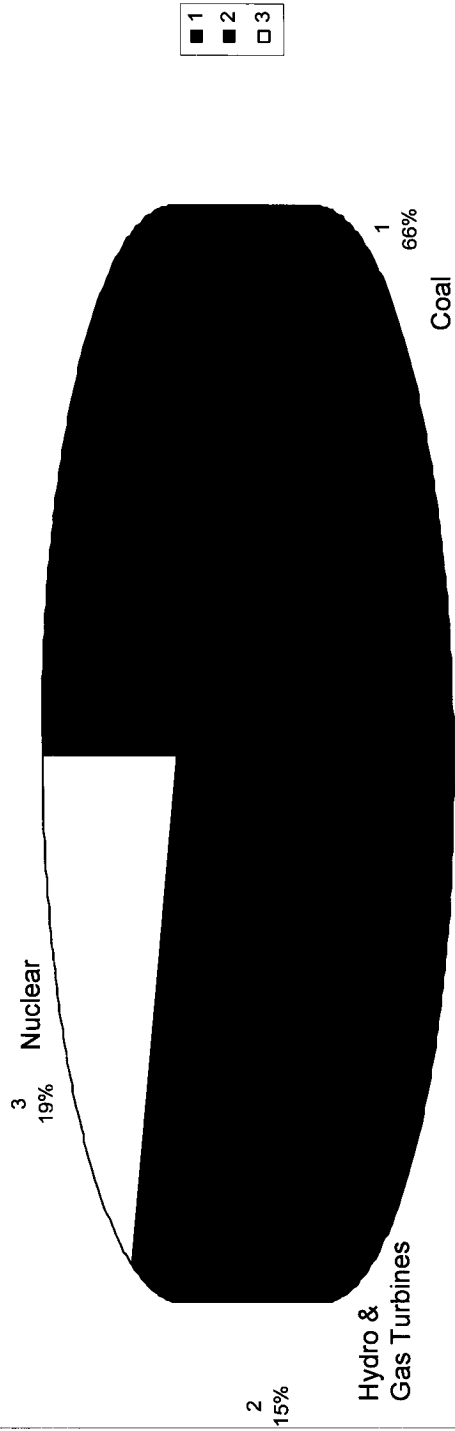
1 2007 is 9772 Btu/kWh. Cope Station had the best heat rate in our system at
2 9286 Btu/kWh followed by Williams Station at 9547 Btu/kWh.

3 In the November 2006 issue of *Electric Light & Power*, SCE&G
4 was recognized for having three of its plants listed in the top 20 most
5 energy efficient coal fired plants in the nation for 2004. Cope Station
6 ranked 4th at 9214 Btu/kWh, Williams Station ranked 11th at 9462 Btu/kWh
7 and McMeekin Station was ranked 17th at 9552 BTU/Kwh. This ranking
8 means that three of the six SCE&G coal fired plants representing over half
9 of our fossil fired generating capacity are ranked in the top 20 plants in the
10 country for efficiency.

11 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

12 **A. Yes.**

**South Carolina Electric & Gas
2006 Generation Mix**



Station Service Transformer



Generator Neutral Grounding Transformer

2006 12 21

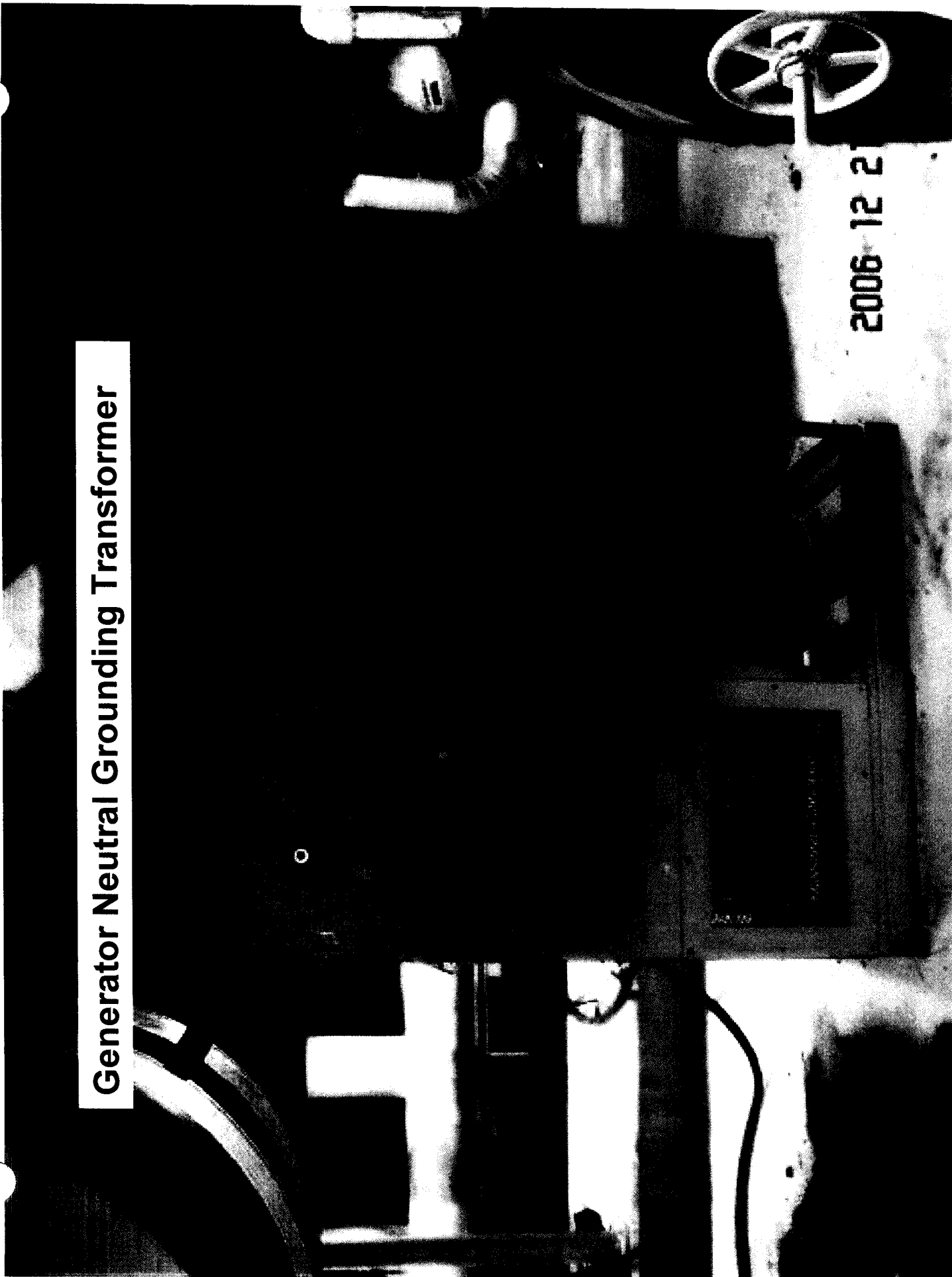




Exhibit No. ____
(JKT-2)

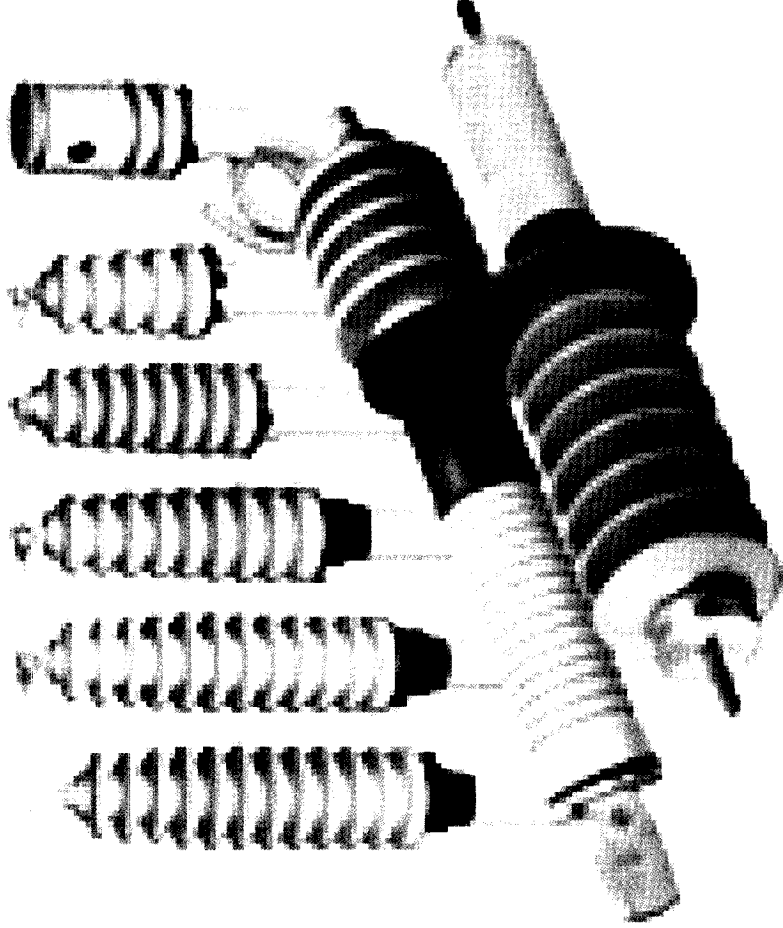
Cause

- Tracking across insulating surface of transformer bushing



Bushings

Exhibit No. ____
(JKT-2)



1 **DIRECT TESTIMONY OF**
2 **GERHARD HAIMBERGER**
3 **ON BEHALF OF**
4 **SOUTH CAROLINA ELECTRIC & GAS COMPANY**
5 **DOCKET NO. 2007-2-E**

6 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND**
7 **CURRENT POSITION.**

8 A. Gerhard Haimberger, 1426 Main Street, Columbia, South Carolina.
9 I am employed by SCANA Services, Inc. as General Manager, Fuel
10 Procurement and Asset Management, providing fuel and transportation
11 purchasing on behalf of South Carolina Electric & Gas Company
12 ("SCE&G" or the "Company").

13 **Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND AND YOUR**
14 **BUSINESS EXPERIENCE.**

15 A. I have a Bachelor of Science Degree in Mining Engineering from the
16 Colorado School of Mines in Golden, Colorado, and am a registered
17 professional engineer. I have been involved in fuel production or
18 procurement for over thirty years. In July 2003, I was employed by the
19 SCANA Services, Inc. in my current position and report directly to the
20 Senior Vice-President, Fuel Procurement and Asset Management, SCANA
21 Services, Inc.

22 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

23 A. The purpose of my testimony is to describe the procurement and
24 delivery activities for fossil fuel (coal and oil) used in electric generation

1 for SCE&G and GENCO's Williams Station for the period February 1,
2 2006 through January 31, 2007 (the "Review Period") and to comment on
3 the current state of the U.S. coal industry.

4 **Q. PLEASE EXPLAIN TO THE COMMISSION SOUTH CAROLINA**
5 **GENERATING COMPANY ("GENCO") AND ITS RELATIONSHIP**
6 **TO SCE&G.**

7 A. South Carolina Generating Company, Inc., ("GENCO") was
8 incorporated October 1, 1984. GENCO owns the Williams Electric
9 Generating Station. GENCO sells to SCE&G the entire capacity and
10 output from the Williams Station under a Unit Power Sales Agreement
11 approved by the Federal Energy Regulatory Commission. Hereafter when
12 I refer to SCE&G's fossil steam plants, I include GENCO.

13 **Q. PLEASE SUMMARIZE SCE&G'S FUEL PROCUREMENT NEEDS**
14 **AND PURCHASING PRACTICES.**

15 A. The Fuel Procurement Department (coal and oil) ("Fuel
16 Procurement") purchases all necessary coal, fuel oil and associated
17 transportation for SCE&G's fossil plants focusing on reliability of supply,
18 conformity with operational and environmental requirements, and securing
19 reasonable prices. We also purchase EPA sulfur-dioxide emission
20 allowances as determined by SCE&G.

1 **Q. HOW DOES THE COMPANY SECURE THE NECESSARY**
2 **QUANTITIES OF COAL AND OIL AT COMPETITIVE PRICES?**

3 A. SCE&G maintains an active list of qualified suppliers of coal and
4 fuel oil used to power its plants. Typically, as contracts expire or needs
5 are identified, solicitations are mailed out for competitive sealed bids.

6 **Q. HOW DOES SCE&G APPROACH THE MARKETPLACE FOR**
7 **COAL AND FUEL OIL?**

8 A. Coal is procured with long-term (more than one year) and spot
9 purchase (up to one year) agreements to achieve a balance of reliable
10 supplies and flexibility to react to market changes or short-term system
11 needs. We seek to have long-term purchases representing approximately
12 75 to 80 percent of projected system demand and long-term coal contracts
13 typically are written with variable quantity clauses when market leverage
14 allows. Variable quantity clauses, when available, and spot purchases
15 provide the mechanisms to manage inventories and react to short-term
16 changes in the marketplace should prices become more competitive. By
17 utilizing spot purchases, SCE&G has been successful in taking advantage
18 of favorable spot market prices and managing its inventory.

19 Fuel oil contracts are requirements contracts that are competitively
20 solicited biannually.

1 **Q. HOW DOES SCE&G ASSURE THE RIGHT QUANTITY OF FUEL**
2 **SUPPLIES TO MEET GENERATION DEMANDS?**

3 A. SCE&G uses several methods to bring the fuel supply and demand
4 factors together. Fuel usage levels are calculated and forecast for each of
5 the generating plants. Coal and fuel oil inventories are then validated and
6 contract quantities are summed to determine system needs going forward.
7 With this information, Fuel Procurement looks at the coal requirements
8 and the economics of exercising available variable quantity portions of
9 long-term contracts or the possibility of going to the spot market to
10 purchase any additional coal requirements at lower pricing. Throughout
11 the years, SCE&G has been successful in leveraging long-term and short-
12 term coal purchases to achieve reasonably low purchase prices while
13 assuring the reliability of coal supplies necessary to support system needs.
14 Fuel oil inventories are purchased to ensure adequate back up to natural
15 gas for SCE&G's intermediate and peaking generators. Contracts are
16 awarded on a biannual basis using competitive bids. Typically, fuel
17 storage tanks are filled going into peak usage periods and reduced to lower
18 levels throughout the shoulder months to protect fuel quality.

19 **Q. HOW DOES THE COMPANY MANAGE COAL INVENTORIES**
20 **TO INSURE RELIABILITY AND AVAILABILITY?**

21 A. The Company attempts to maintain approximately a 925,000 ton
22 inventory of coal based on an average of twelve months' ending monthly

1 inventories to support anticipated consumption. This methodology allows
2 an inventory of more than 925,000 tons at the beginning of high demand
3 periods and less than 925,000 tons entering the shoulder months. This
4 inventory level aids in protecting SCE&G against availability, production
5 and delivery problems that may arise from time to time. It also affords the
6 resources to meet our supply needs when short-term market prices are
7 unfavorable. It is always important to balance short-term decisions against
8 long-term requirements and future operating conditions.

9 **Q. HOW DOES THE COMPANY DETERMINE THE “REASONABLE**
10 **PRICE” FOR FUEL PURCHASES?**

11 A. Fuel Procurement must look for an optimization between adequate
12 supplies of acceptable quality at reasonable purchase prices with the
13 ultimate value of the delivered fuel (coal or oil) determined by the actual
14 measured heat rate efficiency in the operation of our generating plants.
15 Markets are volatile and fluctuate due to such things as seasonality,
16 political turmoil, national weather trends and supply/demand imbalances.
17 SCE&G strives to use a variety of pricing mechanisms among coal
18 contracts to mitigate or normalize the effects on prices created by changes
19 in market conditions and indexes by staying close to market, balancing
20 adequate inventories against long-term contract supplies, spot market
21 purchases and variable quantity options. In addition to strategically
22 managing our current assets, SCE&G stays current with developing trends

1 and fundamental changes taking place in the industry and receives key
2 marketing information. This information flow is integral in our ongoing
3 analysis of current or prospective coal costs and market comparability.

4 **Q. SUMMARIZE THE QUANTITY, QUALITY, AND TERM OF THE**
5 **COMPANY'S COAL PURCHASES.**

6 A. During the Review Period, the Company purchased approximately
7 5.9 million tons of coal under long term agreements and 1.1 million tons of
8 spot purchases. Long term agreements represented approximately 84% of
9 the requirement for the Company's five coal-fired stations, and GENCO's
10 Williams Station. For the February 2007 through January 2008 period, the
11 Company projects to have long-term contracts with 10 suppliers totaling 5
12 million tons of coal representing approximately 83% of the total receipts
13 depending on final contract negotiations. The quality ranges are from
14 12,200 to 13,000 BTU per pound and sulfur contents from 1.0% to 1.3%.
15 Most of these contracts are for a period of two to four years with some
16 options to renew. The amount of coal under contract will vary from year
17 to year. In some of our coal contracts, we have been successful in
18 negotiating fixed pricing for the term of the contract. Other coal contracts
19 contain predetermined price adjustments.

1 **Q. WHAT HAS OCCURRED REGARDING COAL PRICES AND**
2 **TRANSPORTATION RATES IN THE PAST YEAR?**

3 A. Coal market prices have remained stable at elevated levels described
4 in Dockets 2005-2-E and 2006-2-E until approximately November, 2006
5 when spot prices began to decline due to lack of demand caused partially
6 by temperate weather, nationally, during the past year. SCE&G
7 renegotiated three coal contracts early in the Review Period and has taken
8 advantage of several spot opportunities recently.

9 Transportation rates are typically confidential. One small rail
10 transportation contract expired during the review period and has not been
11 renewed because the supplemental volumes it represented are no longer
12 needed.

13 SCE&G continues to expand its coal specifications by purchasing
14 lower qualities of coal and blending them with better quality to acceptable
15 levels and continues to diversify its coal supply and transportation with
16 some import coal purchases thereby protecting against possible domestic
17 supply and transportation constraints as occurred in 2004.

18 **Q. WHAT WERE SCE&G'S DELIVERED COAL COSTS FOR THE**
19 **REVIEW PERIOD ?**

20 A. Exhibit (GH-1), entitled "Coal Purchased For Steam Plants",
21 displays the average cost in dollars per MMBTU (million British Thermal
22 Units) for coal purchased during the Review Period. The highest delivered

1 cost for any individual purchase during the Review Period was \$
2 2.9627/MMBTU and the lowest was \$ 1.7054/MMBTU.

3 **Q. WHAT HAS BEEN THE RECENT PRICING TREND IN THE NO. 2**
4 **FUEL OIL INDUSTRY?**

5 A. Delivered fuel oil prices during the Review Period remained volatile
6 reflecting the actions of OPEC, increasing domestic and global demand led
7 by economic growth in China and India, political instability in Nigeria,
8 Venezuela and the Middle East. Oil prices and volatility have been
9 regularly reported in the public press. During the past year, delivered
10 prices have varied from a monthly low of \$ 1.73/gallon in January 2007 to
11 a monthly high of \$ 2.25/gallon in July 2006 (\$ 12.53/MMBTU to \$
12 16.31/MMBTU on a calorific basis). Exhibit (GH-2) shows the average
13 system delivered No. 2 fuel oil prices in \$/MMBTU for the Review Period.

14 **Q. ARE THERE ANY OTHER THINGS THE COMPANY HAS DONE**
15 **TO MITIGATE FUEL-RELATED EXPENSES THAT WILL**
16 **IMPACT FUEL COSTS?**

17 A. The Clean Air Act Amendment of 1990 called for electric utilities to
18 reduce sulfur dioxide (SO₂) emissions. An SO₂ Emission Allowance
19 Trading Market was established by the Environmental Protection Agency
20 (EPA) to assist utilities in managing the costs of complying with these new
21 regulations. The Company has purchased SO₂ allowances as part of our
22 overall strategy to compensate for our SO₂ emissions. SO₂ emission

1 allowance prices have decreased during the Review Period due to active
2 and announced SO2 scrubber projects and are currently approximately
3 \$500 per allowance. Price volatility reflects the depletion of available
4 allowances, and actions of hedge funds and other financial organizations
5 participating in the SO2 markets for speculative purposes which tend to
6 increase allowance prices.

7 **Q. HAS SCE&G MADE EVERY REASONABLE EFFORT TO**
8 **MINIMIZE ITS FUEL COSTS?**

9 A. Yes, the Fuel Procurement Department has made every reasonable
10 effort to obtain reliable, high quality supplies of fuel and transportation at
11 the lowest possible cost to SCE&G's customers.

12 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

13 A. Yes.

Exhibit No. ____ (GH-1)

Coal Purchased for Steam Plants

\$/MMBTU

Feb. 06	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. 07
\$2.56	\$2.54	\$2.63	\$2.54	\$2.51	\$2.54	\$2.52	\$2.59	\$2.56	\$2.50	\$2.42	\$2.38

Exhibit No. ____ (GH-2)

No. 2 Fuel Oil Purchased for Steam Plants

\$/MMBTU

Feb. 06	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan. 07
\$13.47	\$13.91	\$15.31	\$15.61	\$15.22	\$16.31	\$16.04	\$13.58	\$13.49	\$13.70	\$13.99	\$12.53

**DIRECT TESTIMONY OF
JOSEPH M. LYNCH
ON BEHALF OF
SOUTH CAROLINA ELECTRIC & GAS COMPANY
DOCKET NO. 2007-2-E**

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND CURRENT POSITION.

A. Joseph M. Lynch, 1426 Main Street, Columbia, South Carolina. My current position is Manager of Resource Planning, SCANA Services, Inc.

Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I graduated from St. Francis College in Brooklyn, New York with a Bachelor of Science degree in mathematics. From the University of South Carolina I received a Master of Arts degree in mathematics, an MBA and a Ph.D. in management science and finance. I was employed by South Carolina Electric & Gas Company (“SCE&G” or the “Company”) as a Senior Budget Analyst in 1977 to develop econometric models to forecast electric sales and revenue. In 1980, I was promoted to Supervisor of the Load Research Department. In 1985, I became Supervisor of Regulatory Research where I was responsible for load research and electric rate design. In 1989, I became Supervisor of Forecasting and Regulatory Research, and, in 1991, I was promoted to my current position of Manager of Resource Planning.

1 **Q. BRIEFLY SUMMARIZE YOUR CURRENT DUTIES.**

2 A. As manager of Resource Planning I am responsible for producing
3 SCE&G's forecast of energy, peak demand and revenue; for developing the
4 Company's generation expansion plans; and for overseeing the Company's
5 load research program.

6 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

7 A. The purpose of my testimony is to discuss the Company's short-
8 range energy sales forecast and to explain how we simulate the operation of
9 our power plants to generate the required energy and project the resulting
10 fuel requirements for the system.

11 **Q. DESCRIBE THE COMPANY'S SHORT-RANGE ENERGY**
12 **FORECASTING PROCESS.**

13 A. Each summer the Company updates its short-range and long-range
14 sales forecast as part of its annual planning cycle. The long-range sales
15 forecast refers to the forecast for the full twenty year planning horizon. The
16 short-range sales forecast refers to the forecast for the first two years of the
17 planning horizon and is projected on a month-by-month basis. In preparing
18 the short-range sales forecast, we divide our customers into detailed
19 forecasting groups defined by rate and class. Where possible, customers are
20 further divided into electric space heating and non-electric space heating
21 groups. Residential customers are further separated into those living in
22 either single-family, multi-family or mobile homes. We forecast

1 consumption for about twenty of our largest industrial customers on an
2 individual basis while the balance are separated into 2-digit SIC groups.
3 Exhibit No. __ (JML-1) shows most of the detailed groups. Where a
4 detailed customer group contains a large number of homogeneous
5 customers, separate econometric models are developed to project the
6 number of customers and the average use per customer based on such
7 factors as population growth, and levels of economic activity within our
8 service territory. All residential groups and small commercial groups are
9 projected in this way. Weather is a significant factor in the residential and
10 commercial models. Projections are based on normal weather where normal
11 is defined as the average taken over the last 15 years. Overall, nearly 100
12 econometric and statistical models are utilized to develop the short-run
13 forecast.

14 **Q. IS YOUR ENERGY FORECASTING METHODOLOGY TYPICAL**
15 **FOR THE INDUSTRY?**

16 A. Yes, our use of multiple regression and statistical time-series models
17 is fairly standard throughout the industry.

18 **Q. HOW ACCURATE HAS YOUR ENERGY FORECASTING**
19 **METHODOLOGY BEEN?**

20 A. Over the past ten years the mean absolute percent error (MAPE) has
21 been 1.3% when comparing the forecast to the weather-normalized actual
22 consumption of energy on our system.

1 **Q. WHAT IS YOUR ENERGY FORECAST FOR 2007?**

2 A. We expect our territorial customers to consume 23,741 gigawatt
3 hours of energy in 2007 with 34% being consumed by our residential
4 customers, 32% by our commercial customers, 26% by our industrial
5 customers and the balance of 8% by the combination of the remaining retail
6 classes and our territorial wholesale customers.

7 **Q. EXPLAIN HOW YOU TRANSLATE THIS ENERGY SALES**
8 **FORECAST INTO A FORECAST OF FUEL REQUIREMENTS FOR**
9 **THE ELECTRIC SYSTEM.**

10 A. We simulate the dispatch of our generating units with the software
11 program PROSYM. PROSYM is licensed with Global Energy Decisions,
12 Inc. It is a well-accepted tool in the industry being used by over 100
13 utilities.

14 **Q. DISCUSS THE PROSYM MODEL INPUTS.**

15 A. The following are key inputs to the model:

- 16 1. Energy Sales Forecast
- 17 2. Fuel Price Data
- 18 3. Generator Operating Parameters; and
- 19 4. Market Prices.

20 Exhibit No. ____ (JML-2) graphically displays these inputs.

1 **Energy Sales Forecast:** I have already described the creation of the
2 monthly energy sales forecast. This is used to create forecasts of hourly
3 loads based on historical hourly load profiles.

4 **Fuel Price Data:** A forecast of monthly fuel prices for coal and oil are
5 provided by the SCE&G Fossil/Hydro Procurement Department. Fuel data
6 includes transportation costs and sulfur content of coal. A forecast of
7 monthly nuclear fuel prices is provided by the SCE&G Nuclear Fuel
8 Management Department. A gas price forecast is created using the Nymex
9 natural gas futures prices. Expected gas transportation costs are added to
10 the Nymex prices to create a forecast of the delivered cost of gas. In the
11 forecast presented here, we are using the prices of the Nymex futures
12 contracts from market close on February 7, 2007. The average price for the
13 twelve contracts, May 2007 through April 2008, was \$9.20 per DT.

14 **Generator Operating Parameters:** Generator operating parameters
15 include heat rate, capacity, maintenance outage schedule, forced outage
16 rate, and operating constraints. Operating constraints include variables
17 such as minimum up and down times, ramp rates, and start costs. All of
18 these variables control the cost and feasibility of dispatching each unit each
19 hour.

20 **Market Prices:** The market prices for power are input into the model to
21 reflect the opportunities that SCE&G has to purchase power at prices below
22 its marginal cost of generation or to sell power above its marginal cost of

1 generation. The market prices utilized in the model are determined using
2 SCE&G's marginal costs and the marginal costs of utilities in the southeast.

3 **Q. EXPLAIN HOW PROSYM MODELS THE ELECTRIC SYSTEM.**

4 A. PROSYM is a chronological hourly dispatch model. In each hour of
5 a study period, PROSYM arranges all the available supply sources from
6 lowest cost to highest and then determines the least-cost way to meet the
7 customer load in that hour while considering a complex set of operating
8 constraints. As part of this dispatching process, PROSYM also simulates
9 random unscheduled outages of our plants based on the forced outage rates
10 that were part of the input database.

11 **Q. WHAT ARE THE PROSYM RESULTS FOR 2007?**

12 A. Based on the PROSYM simulations, we expect to supply 27,813
13 gigawatt hours of energy to the electric grid. This includes losses and
14 energy required for pumping at our pumped storage plant. Of this total
15 supply, we expect about 62% to come from coal, 20% from nuclear, 10%
16 from natural gas, 5% from hydro and 3% from off-system purchases.

17 **Q. HOW SENSITIVE ARE THE SYSTEM PRODUCTION COSTS TO**
18 **THE SYSTEM ENERGY NEEDS?**

19 A. Since we dispatch the most economical generating units first, an
20 increase or decrease in sales will occur at the margin and will involve the
21 more costly sources of power. We estimate that a 1% change in energy
22 requirements, which is about our average forecast error, will result in about

1 a 2% change in production costs assuming, of course, that the only input
2 being changed is the energy needs of our customers.

3 **Q. AFTER RUNNING THE PROSYM MODEL, WHAT IS THE NEXT**
4 **STEP IN YOUR PROCESS?**

5 A. For the purpose of these proceedings, the PROSYM model output
6 that defines how the SCE&G electric system will meet the projected
7 electric load is passed to the Rate Department, which develops the
8 appropriate fuel factor for SCE&G rates. Mr. Hendrix will discuss this
9 subject. The specific data items that are passed to the Rate Department are
10 plant generation, plant average heat rate, heat content of the coal, capacity
11 factors by unit, off system purchases and sales, and associated market
12 prices. These model outputs form an appropriate basis for projecting fuel
13 costs for the forecast period in this proceeding.

14 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

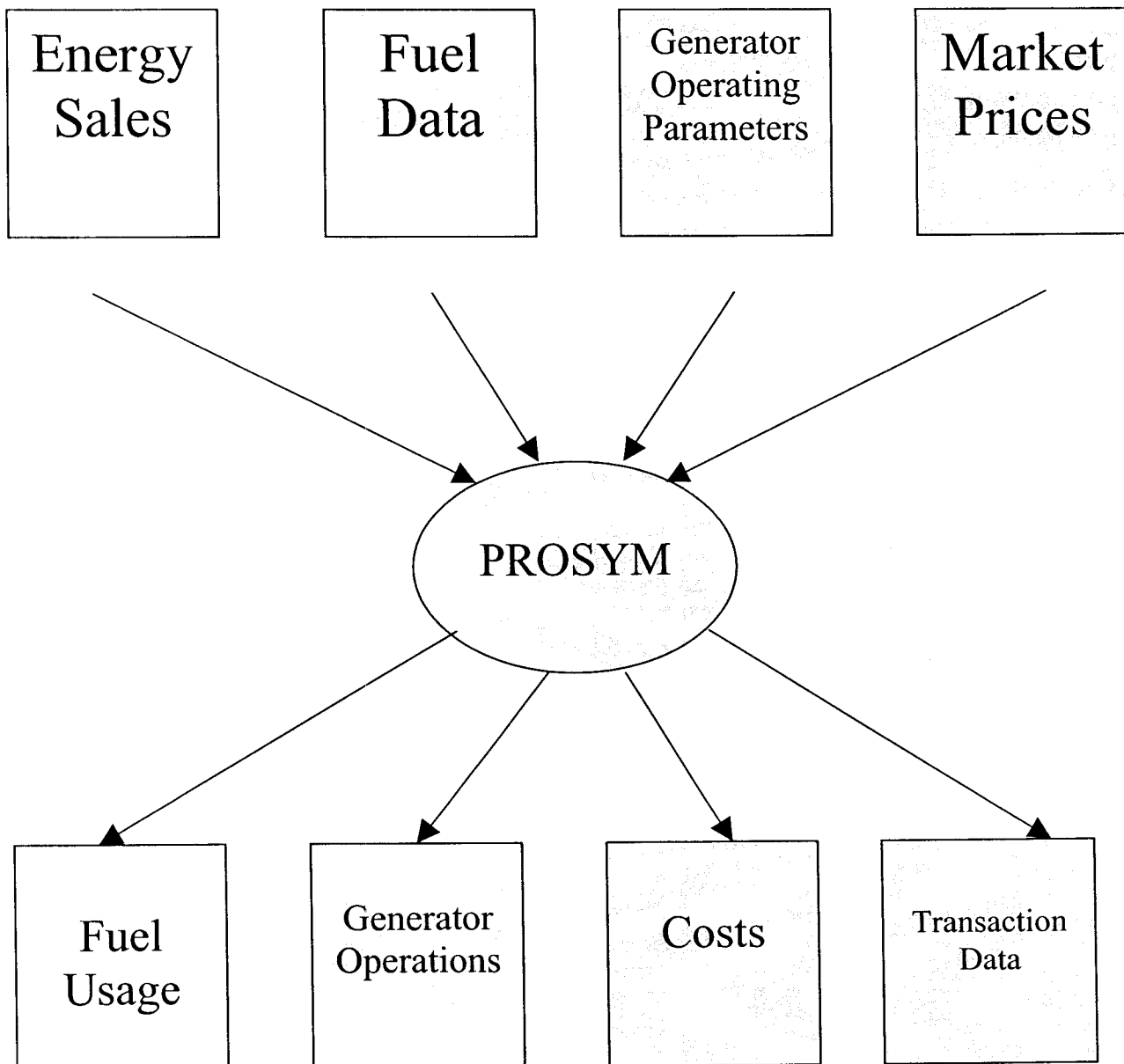
15 A. Yes it does.

Short-Term Forecasting Groups

<u>Class Number</u>	<u>Class Name</u>	<u>Rate/SIC Designation</u>	<u>Comment</u>
10	Residential Non-Space Heating	Single Family	Rates 1, 2, 5, 6, 8, 18, 25, 26, 62, 64
910	Residential Space Heating	Multi Family	Rates 67, 68, 69
		Mobile Homes	Rates 1, 2, 5, 7, 8
20	Commercial Non-Space Heating	Rate 9	Small General Service
		Rate 12	Churches
		Rate 20, 21	Medium General Service
		Rate 22	Schools
		Rate 24	Large General Service
		Other	Rates 10, 11, 14, 16, 17, 18, 24, 25, 26, 29, 60, 62, 64, 67, 68, 69
920	Commercial Space Heating	Rate 9	Small General Service
30	Industrial Non-Space Heating	Rate 9	Small General Service
		Rate 20, 21	Medium General Service
		Rate 23, SIC 22	Textile Mill Products
		Rate 23, SIC 24	Lumber, Wood Products, Furniture and Fixtures (SIC Codes 24 and 25)
		Rate 23, SIC 26	Paper and Allied Products
		Rate 23, SIC 28	Chemical and Allied Products
		Rate 23, SIC 30	Rubber and Miscellaneous Products
		Rate 23, SIC 32	Stone, Clay, Glass, and Concrete
		Rate 23, SIC 33	Primary Metal Industries; Fabricated Metal Products; Machinery; Electric and Electronic Machinery, Equipment and Supplies; and Transportation Equipment (SIC Codes 33-37)
		Rate 23, SIC 91	Executive, Legislative and General Government (except Finance)
		Rate 23, SIC 99	Other or Unknown SIC Code*
		Rate 27, 60	Large General Service
		Other	Rates 25 and 26
930	Industrial Space Heating	Rate 9	Small General Service
60	Street Lighting	Rates 3, 9, 13, 17, 25, 26, 29, and 69	
70	Other Public Authority	Rate 3 and 29	
		Rates 65 and 66	
92	Municipal	Rate 60, 61	Four Individual Accounts
97	Cooperative	Rate 60, 61	Three Individual Accounts

* Includes small industrial customers from all SIC classifications that were not previously forecasted individually.

Note: Industrial Rate 23 also includes Rate 24. Commercial Rate 24 also includes Rate 23.



1
2 **DIRECT TESTIMONY OF**
3 **JOHN R. HENDRIX**
4 **ON BEHALF OF**
5 **SOUTH CAROLINA ELECTRIC & GAS COMPANY**
6 **DOCKET NO. 2007-2-E**
7

8 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

9 A. John R. Hendrix, 1426 Main Street, Columbia, South Carolina.

10 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

11 A. I am Manager of Electric Pricing and Rate Administration at SCANA
12 Services, Inc.

13 **Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**
14 **BUSINESS EXPERIENCE.**

15 A. I am a graduate of the University of South Carolina where I received
16 a Bachelor of Science Degree in Business Administration with a major in
17 marketing. Since joining South Carolina Electric & Gas Company in
18 August 1983, I have held various positions within the Rate Department. In
19 November 2002, I assumed my present position. I have participated in cost
20 of service studies, rate development and design, and rate evaluation
21 programs for both the electric and gas operations. I am a member of the
22 Southeastern Electric Exchange Rate Section.

1 **Q. WILL YOU BRIEFLY SUMMARIZE YOUR DUTIES WITH**
2 **SOUTH CAROLINA ELECTRIC & GAS COMPANY?**

3 A. I am responsible for the design and administration for the Company's
4 electric rates and tariffs including the electric fuel adjustment. In addition,
5 I am responsible for the Company's electric cost allocation studies.

6 **Q. MR. HENDRIX, WHAT IS THE PURPOSE OF YOUR TESTIMONY**
7 **IN THIS PROCEEDING?**

8 A. The purpose of my testimony is to provide the actual fuel cost data for
9 the period February 1, 2006 through January 31, 2007, the historical period
10 under review in this proceeding. I will also provide the computations for
11 the projected fuel cost per kilowatt-hour of sales for the period May 1, 2007
12 through April 30, 2008, along with the Company's recommended fuel rate
13 for the period ending April, 2008.

14 **Q. WHAT IS THE COMPANY'S CURRENTLY APPROVED RATE**
15 **FOR FUEL COST?**

16 A. In Order No. 2006-235(A), the Commission approved a 2.516 cents
17 per KWH fuel component.

18 **Q. WILL YOU PLEASE EXPLAIN EXHIBIT NO. ____ (JRH-1)?**

19 A. Exhibit No. ____ (JRH-1) shows the actual fuel cost and
20 over/under recovery of fuel revenue experienced by the Company for the
21 months of February 2006 through January 2007, as well as the forecast for
22 February, March and April 2007. As shown on this Exhibit, the Company

1 has an actual under collection of \$52,476,342 as of January 2007. The
2 forecasted balance at April, 2007 is an under collection of \$38,468,549.
3 Carrying costs has been included in these calculations pursuant to the
4 provisions of Order No. 2006-235(A).

5 **Q. WILL YOU PLEASE EXPLAIN EXHIBIT NO. _____(JRH-2)?**

6 **A.** Exhibit No. _____(JRH-2) contains the Company's fuel cost forecast
7 and projected recovery calculations by month for May 2007 through April
8 2008. This exhibit reflects the monthly and cumulative over and under
9 projected fuel cost collection expected by the Company using its
10 recommended fuel rate. The projection shows an under recovery of
11 \$38,468,549 at April 2007 and a balance at period end as close to zero as
12 possible.

13 **Q. BY WHAT PROCESS DO YOU DEVELOP YOUR FUEL FACTOR**
14 **FOR SCE&G'S RATES?**

15 **A.** As Mr. Lynch indicates in his testimony, we receive the output from
16 the PROSYM model from the Resource Planning Department. This data is
17 loaded onto spreadsheets along with fuel ending inventories, emission
18 allowances, forecasted fuel prices and information regarding operations to
19 determine projected fuel costs for February, March and April 2007, as well
20 as the twelve months ending April 2008.

1 **Q. WILL YOU PLEASE EXPLAIN EXHIBIT NO. _____(JRH-3)?**

2 A. Exhibit No. _____(JRH-3) provides the calculation of the projected
3 fuel component for the twelve-month period May 2007 through April 2008,
4 as well as the Company's fuel rate recommendation. For the twelve
5 months May 2007 through April 2008 the base fuel rate is 2.632 cents per
6 KWH, which includes 0.172 cents per KWH to recover the anticipated
7 under collection.

8 **Q. MR. HENDRIX, WHAT FUEL COMPONENT IS THE COMPANY**
9 **PROPOSING IN THIS PROCEEDING?**

10 A. The Company is proposing that the fuel component be set at 2.632
11 cents per KWH effective for bills rendered on and after the first billing
12 cycle of May 2007 and continuing through the billing month of April 2008.

13 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

14 A. Yes.

SOUTH CAROLINA ELECTRIC & GAS COMPANY

FUEL COSTS REPORT

ACTUAL 2006

LINE NO.	FEBRUARY \$	MARCH \$	APRIL \$	MAY \$	JUNE \$	JULY \$	AUGUST \$
1. TOTAL COST OF FOSSIL FUEL BURNED	32,489,281	34,531,775	26,669,142	35,571,611	47,290,050	58,812,476	67,273,248
2. NUCLEAR FUEL	1,927,854	(3,868,674)	2,060,792	2,076,842	2,022,004	2,108,826	2,118,287
3. PURCHASED AND INTERCHANGE POWER FUEL COSTS	8,468,162	5,169,991	11,237,662	10,979,975	10,462,576	11,259,496	11,562,584
4. LESS FUEL RECOVERED THROUGH INTERSYSTEM SALES	<u>5,719,505</u>	<u>4,914,875</u>	<u>2,720,610</u>	<u>4,944,197</u>	<u>7,719,347</u>	<u>8,428,976</u>	<u>10,699,932</u>
5. TOTAL FUEL COSTS (LINES 1+2+3-4)	37,165,792	30,918,217	37,246,986	43,684,231	52,055,283	63,751,822	70,254,187
6. TOTAL SYSTEM SALES EXCLUDING INTERSYSTEM SALES (KWH)	1,762,946,768	1,778,180,419	1,641,714,242	1,800,037,126	2,128,012,318	2,252,592,119	2,427,170,905
7. FOSSIL FUEL COST PER KWH SALES	0.021082	0.017388	0.022688	0.024269	0.024462	0.028302	0.028945
8. LESS BASE COST PER KWH INCLUDED IN RATES	0.022560	0.022560	0.022560	0.025160	0.025160	0.025160	0.025160
9. FOSSIL FUEL ADJUSTMENT PER KWH	(0.00148)	(0.00517)	0.00013	(0.00089)	(0.00070)	0.00314	0.00379
10. RETAIL KWH	1,646,862,967	1,662,822,693	1,532,522,023	1,670,944,442	1,988,875,162	2,097,942,673	2,268,392,331
11. OVER/UNDER RECOVERY REVENUE	(2,437,357)	(8,596,793)	199,228	(1,487,141)	(1,392,213)	6,587,540	8,597,207
12. MONTHLY CARRYING COST COLLECTED	0	0	0	92,699	93,007	90,448	85,964
13. ADJUSTMENTS	(473,141)	201,804	0	0	496,047	0	174,118
14. FIXED CAPACITY CHARGES	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)
15. NET OVER/UNDER RECOVERY REVENUE	(4,494,081)	(9,978,572)	(1,384,355)	(2,978,025)	(2,386,742)	5,094,405	7,273,706
16. CUMULATIVE UNDER(OVER) \$54,648,833	50,154,752	40,176,180	38,791,825	35,813,800	33,427,058	38,521,463	45,795,169

FUEL COSTS REPORT

LINE NO.	ACTUAL 2006 - 2007					FORECAST 2007			
	SEPTEMBER \$	OCTOBER \$	NOVEMBER \$	DECEMBER \$	JANUARY \$	FEBRUARY \$	MARCH \$	APRIL \$	
1. TOTAL COST OF FOSSIL FUEL BURNED	35,030,157	40,281,935	44,534,584	37,008,255	51,226,858	45,510,000	35,512,000	24,110,000	
2. NUCLEAR FUEL	2,051,441	858,293	401,776	2,368,612	2,105,971	1,836,000	2,038,000	1,969,000	
3. PURCHASED AND INTERCHANGE POWER FUEL COSTS	11,299,841	9,964,826	13,775,953	8,132,148	3,593,779	5,250,000	11,962,000	12,407,000	
4. LESS FUEL RECOVERED THROUGH INTERSYSTEM SALES	2,730,643	1,635,111	1,767,247	3,871,872	3,452,984	5,182,000	6,099,000	4,287,000	
5. TOTAL FUEL COSTS (LINES 1+2+3-4)	45,850,796	49,469,943	56,945,066	43,637,143	53,473,624	47,414,000	43,413,000	34,199,000	
6. TOTAL SYSTEM SALES EXCLUDING INTERSYSTEM SALES (KWH)	2,167,168,670	1,789,046,441	1,634,191,672	1,803,347,558	1,834,643,779	1,898,000,000	1,784,000,000	1,692,000,000	
7. FOSSIL FUEL COST PER KWH SALES	0.021065	0.027652	0.034846	0.024198	0.029147	0.024981	0.024335	0.020212	
8. LESS BASE COST PER KWH INCLUDED IN RATES	0.025160	0.025160	0.025160	0.025160	0.025160	0.025160	0.025160	0.025160	
9. FOSSIL FUEL ADJUSTMENT PER KWH	(0.00410)	0.00249	0.00969	(0.00096)	0.00399	(0.00018)	(0.00082)	(0.00495)	
10. RETAIL KWH	2,043,860,494	1,675,800,334	1,523,052,541	1,684,692,746	1,706,292,796	1,783,000,000	1,669,000,000	1,582,000,000	
11. OVER/UNDER RECOVERY REVENUE	(8,379,828)	4,172,743	14,758,379	(1,617,305)	6,808,108	(320,940)	(1,368,580)	(7,830,900)	
12. MONTHLY CARRYING COST COLLECTED	84,790	84,347	82,115	85,925	87,792	87,792	87,792	87,792	
12. ADJUSTMENTS	0	16,647	(20,398)	30,461	(1,594,688)	0	0	0	
13. FIXED CAPACITY CHARGES	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)	
14. NET OVER/UNDER RECOVERY REVENUE	(9,878,621)	2,690,154	13,236,513	(3,084,502)	3,717,629	(1,816,731)	(2,864,371)	(9,326,691)	
15. CUMULATIVE UNDER(OVER) \$45,795,169	35,916,548	38,606,702	51,843,215	48,758,713	52,476,342	50,659,611	47,795,240	38,468,549	

SOUTH CAROLINA ELECTRIC & GAS COMPANY

FUEL COSTS REPORT

Exhibit No. (JRH-2)

2007 FORECAST

LINE NO.	MAY \$	JUNE \$	JULY \$	AUGUST \$	SEPTEMBER \$	OCTOBER \$
1. TOTAL COST OF FOSSIL FUEL BURNED	39,005,000	51,242,000	61,255,000	61,363,000	43,826,000	34,174,000
2. NUCLEAR FUEL	2,038,000	1,952,000	2,016,000	2,016,000	1,952,000	2,038,000
3. PURCHASED AND INTERCHANGE POWER FUEL COSTS	12,435,000	14,996,000	17,186,000	15,899,000	11,859,000	11,202,000
4. LESS FUEL RECOVERED THROUGH INTERSYSTEM SALES	6,436,000	7,988,000	10,305,000	11,082,000	7,885,000	5,142,000
5. TOTAL FUEL COSTS (LINES 1+2+3-4)	47,042,000	60,202,000	70,152,000	68,196,000	49,752,000	42,272,000
6. TOTAL SYSTEM SALES EXCLUDING INTERSYSTEM SALES (KWH)	1,808,000,000	2,141,000,000	2,357,000,000	2,386,000,000	2,202,000,000	1,899,000,000
7. FOSSIL FUEL COST PER KWH SALES	0.026019	0.028119	0.029763	0.028582	0.022594	0.022260
8. LESS BASE COST PER KWH INCLUDED IN RATES	0.026320	0.026320	0.026320	0.026320	0.026320	0.026320
9. FOSSIL FUEL ADJUSTMENT PER KWH	(0.00030)	0.00180	0.00344	0.00226	(0.00373)	(0.00406)
10. RETAIL KWH	1,883,000,000	2,003,000,000	2,202,000,000	2,238,000,000	2,073,000,000	1,785,000,000
11. OVER/UNDER RECOVERY REVENUE	(504,900)	3,605,400	7,574,880	5,057,880	(7,732,290)	(7,247,100)
12. MONTHLY CARRYING COST COLLECTED	87,792	87,792	87,792	87,792	87,792	87,792
13. ADJUSTMENTS	0	0	0	0	0	0
14. FIXED CAPACITY CHARGES	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)
15. NET OVER/UNDER RECOVERY REVENUE	(2,000,691)	2,109,609	6,079,089	3,562,089	(9,228,081)	(8,742,891)
16. CUMULATIVE UNDER(OVER) \$38,468,549	38,467,858	38,577,467	44,656,556	48,218,645	38,990,564	30,247,673

SOUTH CAROLINA ELECTRIC & GAS COMPANY

FUEL COSTS REPORT

2007 - 2008 FORECAST

LINE NO.	NOVEMBER \$	DECEMBER \$	JANUARY \$	FEBRUARY \$	MARCH \$	APRIL \$
1.	39,565,000	41,347,000	43,807,000	34,206,000	36,978,000	32,721,000
2.	1,969,000	2,038,000	2,038,000	1,905,000	2,038,000	1,707,000
3.	6,974,000	11,928,000	12,145,000	12,025,000	10,061,000	12,134,000
4.	5,283,000	7,482,000	7,332,000	4,701,000	5,156,000	5,566,000
5.	43,225,000	47,831,000	50,658,000	43,435,000	43,921,000	40,996,000
6.	1,699,000,000	1,879,000,000	2,051,000,000	1,941,000,000	1,823,000,000	1,731,000,000
7.	0.025441	0.025456	0.024699	0.022378	0.024093	0.023683
8.	0.026320	0.026320	0.026320	0.026320	0.026320	0.026320
9.	(0.00086)	(0.00086)	(0.00162)	(0.00394)	(0.00223)	(0.00264)
10.	1,588,000,000	1,750,000,000	1,917,000,000	1,824,000,000	1,706,000,000	1,620,000,000
11.	(1,397,440)	(1,505,000)	(3,105,540)	(7,186,560)	(3,804,380)	(4,276,800)
12.	87,792	87,792	87,792	87,792	87,792	87,792
13.	0	0	0	0	0	0
14.	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)	(1,583,583)
15.	(2,893,231)	(3,000,791)	(4,601,331)	(8,682,351)	(5,300,171)	(5,772,591)
16.	27,354,442	24,353,651	19,752,320	11,069,969	5,769,798	(2,793)

Exhibit No. ____ (JRH-2)

**SOUTH CAROLINA ELECTRIC & GAS COMPANY
CALCULATION OF BASE FUEL COMPONENT**

**FORECAST
MAY 07 - APR 08
12 MONTHS**

1. PROJECTED DATA:

COST OF FUEL (\$000)	\$607,682
SYSTEM SALES (GWH)	23,917
FUEL RATE (CENTS/KWH)	2.540

2. (OVER)/UNDER COLLECTION (\$000) THROUGH APRIL 2007 \$38,469

SOUTH CAROLINA RETAIL SALES (GWH)	22,389
(OVER)/UNDER COLLECTION RATE (CENTS/KWH)	0.172

3. BASE FUEL RATE (CENTS/KWH):

PROJECTED FUEL RATE	2.540
FIXED TRANSPORTATION CHARGE & CARRYING COST RATE (CENTS/KWH)(a)	<u>(0.080)</u>
TOTAL PROJECTED FUEL RATE	2.460
(OVER)/UNDER RECOVERY RATE	<u>0.172</u>
TOTAL PROJECTED BASE FUEL RATE	<u><u>2.632</u></u>

Note (a): The calculation for the Fixed Transportation Charge and Carrying Cost Rate is (Fixed Transportation Cost) (\$19,003) plus (Carrying Cost) \$1,054 divided by (retail sales) 22,389 equals (0.080) (Cents/KWH).